



FirstNet™

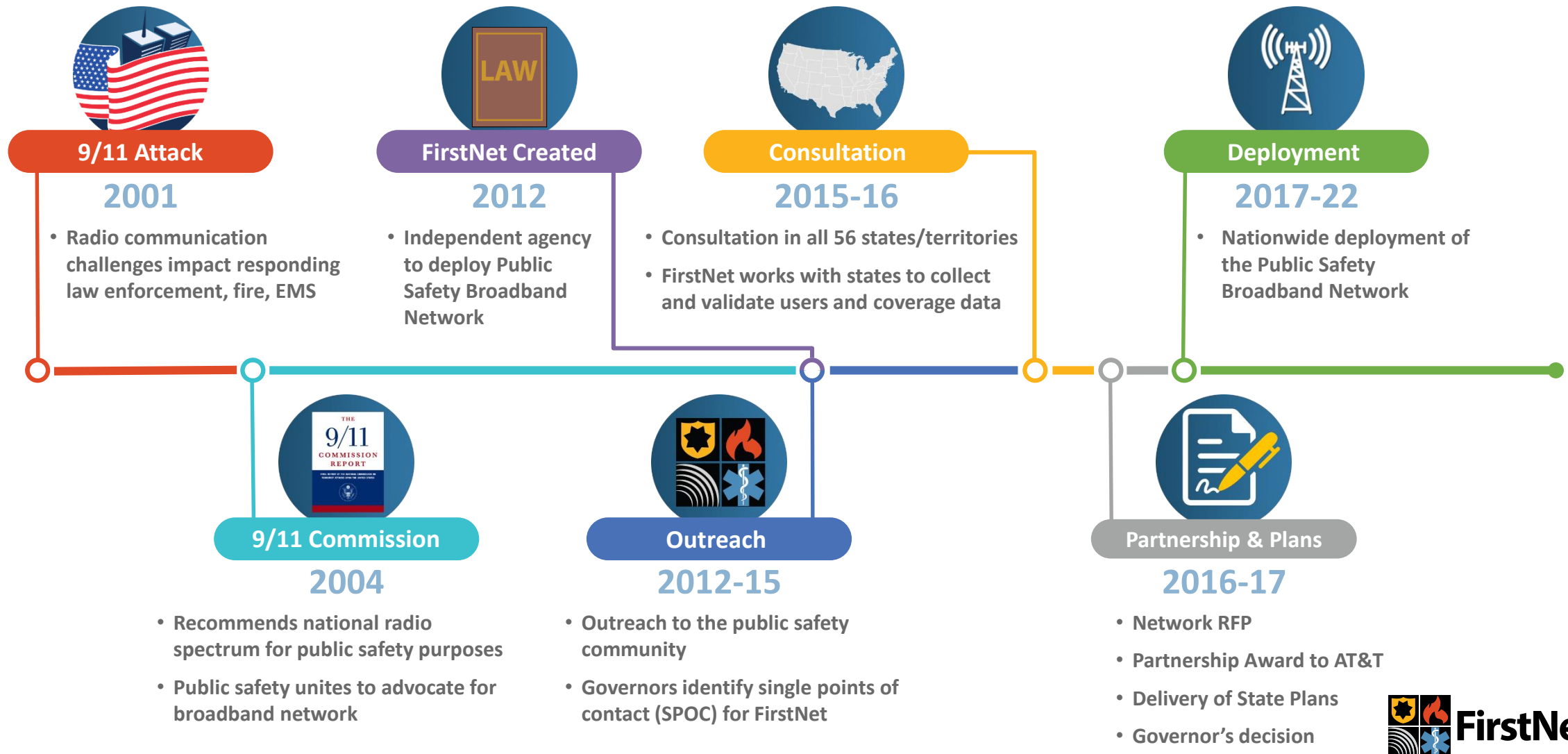
FirstNet in 2018 and Beyond: Ensuring Promises Are Kept

Edward Parkinson, Director of Government Affairs

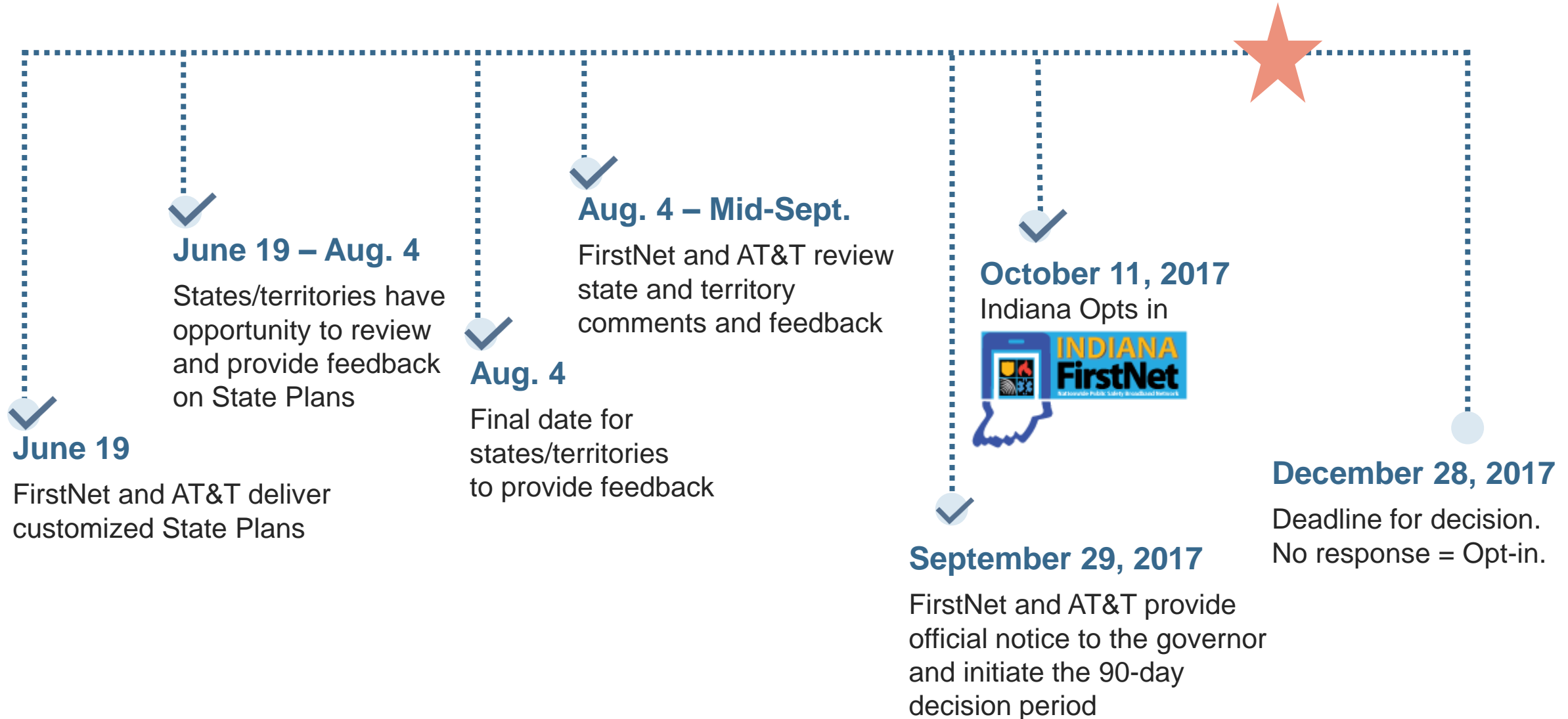
November 30, 2017



FirstNet's Journey



FirstNet State Plans Timeline



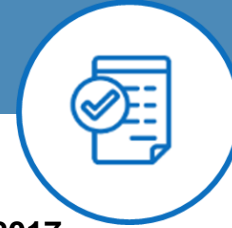
Consultation

What We Heard

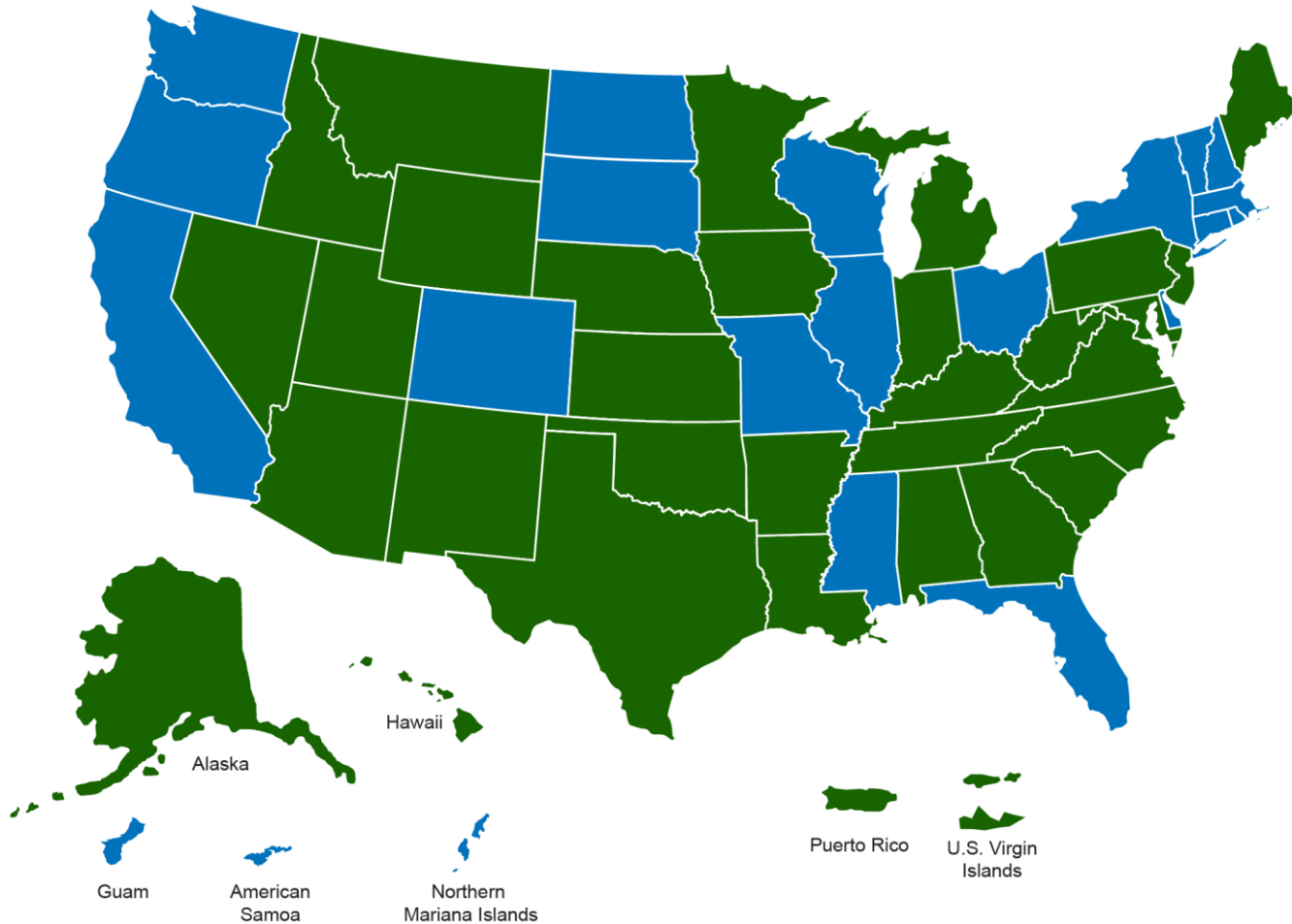
- ☐ “Coverage”
- ☐ “Same or lower cost”
- ☐ “We need this now”
- ☐ “Rural coverage critical”
- ☐ “Device & Apps Ecosystem”



33 “Opt-In” States | Territories

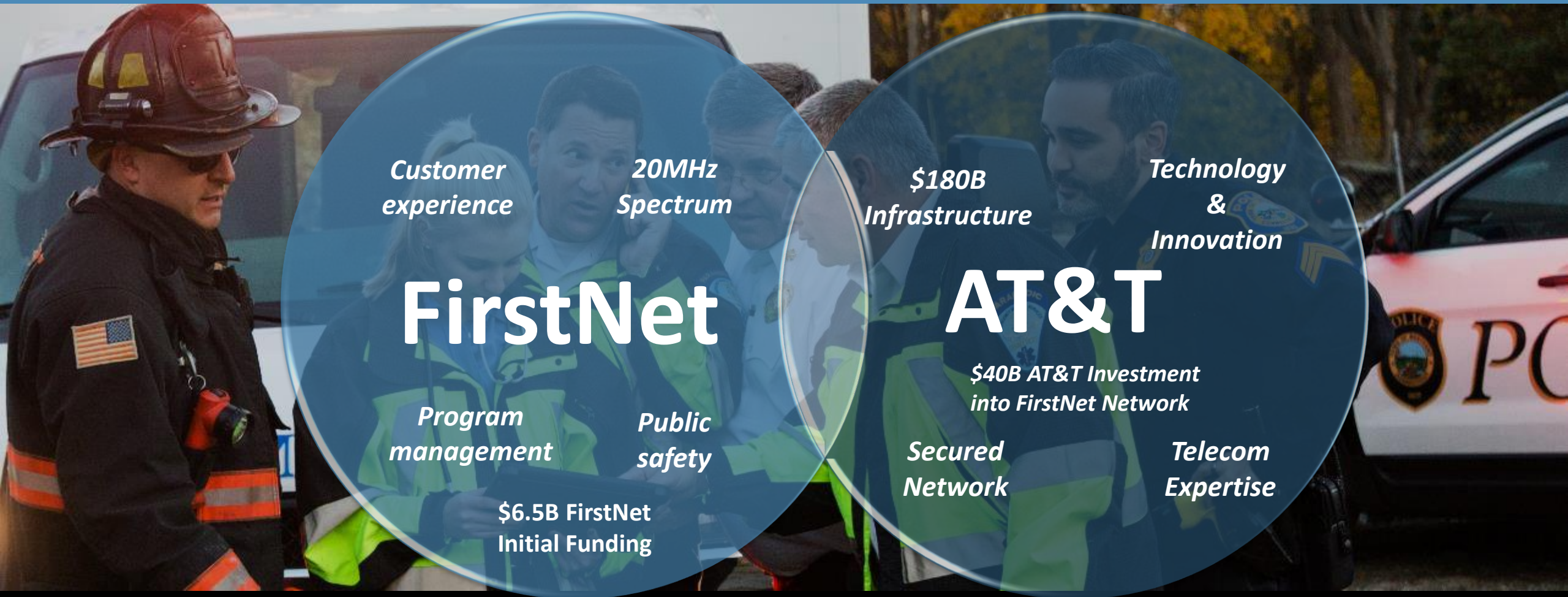


As of Nov. 25, 2017



- Alabama
- Alaska
- Arizona
- Arkansas
- Georgia
- Hawaii
- Idaho
- Iowa
- Indiana
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Michigan
- Minnesota
- Montana
- Nebraska
- Nevada
- New Jersey
- New Mexico
- North Carolina
- Oklahoma
- Pennsylvania
- Puerto Rico
- South Carolina
- Tennessee
- Texas
- U.S. Virgin Islands
- Utah
- Virginia
- West Virginia
- Wyoming

Innovative Public-Private Partnership



Creating an infrastructure dedicated to public safety

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Public Safety Priorities

Delivering on what public safety asked for



- Public safety always gets priority
- Highly secure network to meet public safety's data requirements
- Controlled access by public safety agencies for their users
- Coverage where public safety operates



- Enhanced user experience

Transforming Public Safety Communications



FirstNet - Dedicated to Excellent Customer Experience (CX)

MODERNIZED



Innovative **apps** and large **devices ecosystem**



Network **improvements** and **upgrades over 25 years**



Multi-layered, proven, **cybersecurity** and **network security solutions**

PRIORITIZED



Emergency communications receive highest **Quality Priority & Preemption**

Rapid deployment of network



Instant nationwide **coverage** leveraging existing infrastructure

SPECIALIZED



Nationwide coverage with access to **deployables**



Aggressive pricing for public safety



Dedicated 24/7/365 public safety helpdesk



Holding AT&T Accountable to Public Safety



25-Year Contract

- FirstNet has a 25 year contract with AT&T
- Contract has teeth to ensure that AT&T meets their obligations to the government, the states, and public safety



Buildout Milestones

- Following the decision process, FirstNet will issue task orders based on the State Plan (*early 2018*)
- This task order will have build out milestones as articulated within the State Plan and AT&T does not receive milestone payments if buildout milestones are not met



Public Safety Adoption

- AT&T is required to hit specific public safety adoption targets within Indiana
- If AT&T does not incentivize public safety to subscribe to the network, they can face \$billions of dollars in penalties throughout the country

FirstNet Priorities - 2018

- Initiate **RAN build-out** for opt-in states
- **Innovation Lab** to test current and future network features and capabilities
- **Applications Ecosystem** to evolve and deliver applications
- Complete **FirstNet Core** – March 2018
- Initiate **Band 14** network and FirstNet field operations



Radio Access Network – Multi-Band Solution for Public Safety

Capacity

- Additional bandwidth
- Lower cost/bit as can often deploy more spectrum vs. new sites to add capacity

Coverage

- More sites & in-building DAS available to Public Safety communications

Time To Market

- Utilizing an established RAN network with legacy spectrum allows to launch Public Safety services sooner.

Resiliency

- Wireless interference tends to be band specific & multiple spectrum bands allows for alternative communication paths if one has interference

Faster Data Speeds

- Combining separate LTE bands (Carrier Aggregation) allows faster data speeds by combining multiple LTE spectrum

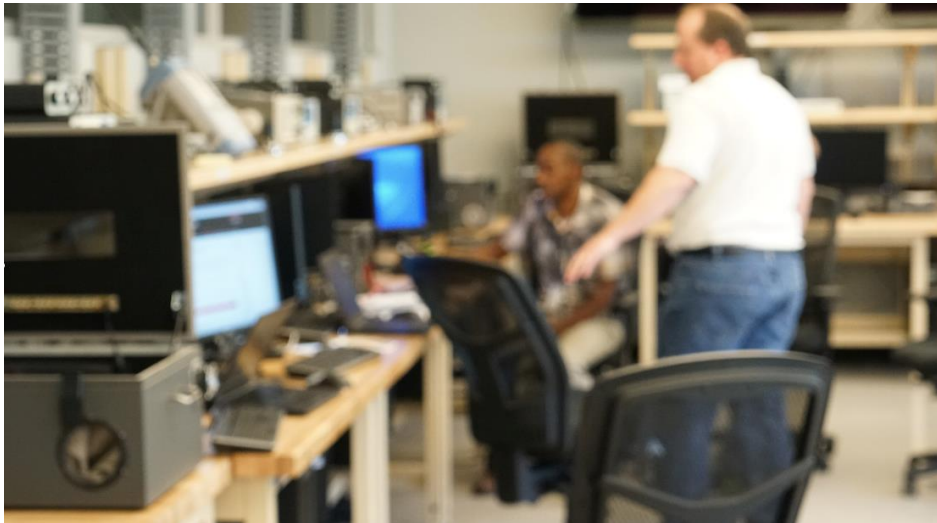


FirstNet Innovation & Test Lab



To Test:

- ✓ Quality of Service
- ✓ Priority
- ✓ Preemption
- ✓ Mission-Critical Services and Application



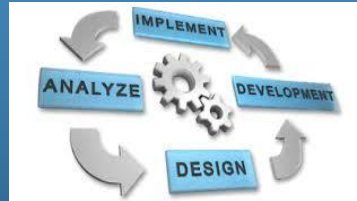
Applications Ecosystem

ICAM



Federated
ICAM

APP DEV ENV



Platform for
developers

TEST & CERT



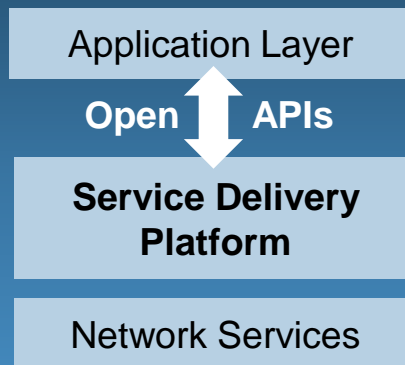
Certify = test
against criteria

APP STORE



Coexist with
commercial apps

SDP



CLOUD SERVICES



Cost-effective
agency options

LOCAL CONTROL



Agency
Controls

SECURITY



App and
data security

FirstNet Application Developer Portal

The screenshot shows the FirstNet Application Developer Portal website. The browser address bar displays <https://developer.firstnet.att.com/firstnet>. The website features a red header with a 'JOIN NOW' button. Below the header, the 'FirstNet Developer Portal' logo is visible, along with navigation links for 'DEVELOPER PROGRAM', 'PROGRAM GOVERNANCE', 'EVENT CALENDAR', and 'API CATALOG'. A 'DISTRIBUTE APPS' button is also present. The main banner image shows a person working on a device, with the text 'Develop Apps for FirstNet. Help Build a Safer World.' and a 'JOIN NOW' button. Below the banner, there are four columns of information:

- MEMBERSHIP:** Be part of an innovative team of public safety community developers that develops apps to help save lives every day being used by millions of first responders nationwide. Open to all developers. Join now.
- DEVELOP:** Develop innovative cutting-edge apps using advanced APIs and award-winning optimization tools. All these available to you at no charge through the FirstNet Developer program.
- CERTIFICATION:** Learn about certification process and approval guidelines to publish your app in the FirstNet App Store.
- DISTRIBUTE:** Use App Control to publish, manage and receive feedback on your apps through the entire lifecycle.

<https://developer.firstnet.att.com/firstnet>

Applications Standards Focus Areas

Applications Base Technologies

- Location apps
- Information exchange
- Situational awareness
- Data analytics
 - Social media
 - RT video



- E-citations & court systems
- Digital evidence
- Facial recognition
- Field reporting



- CAD systems
- Integrated dispatch
- NG 9-1-1
- Electronic citizen reporting
- Government records
- Alarm management



- Personnel biometrics
- Personnel location
- 3D building plans



- Electronic health records
- En-route collaboration
- Telemedicine

Future Technologies

- Z-axis acquisition
- MC-PTT
- MC-Data
- MC-Video
- P2P Apps
- IoT
- Virtual Assistants
- AR/VR
- ICAM

Where to go for FirstNet info

Two sites provide you complete information about this first-of-its-kind initiative:



**FirstNet program, activities and
the First Responder Network Authority**

On this site:

- FirstNet mission and guiding principles
- FirstNet board and leadership
- FirstNet Public Safety Advisory Committee
- Consultation with public safety, states and territories
- State Plans Process and State Points of Contact
- The law that created FirstNet
- FirstNet Innovation and Test Lab



**FirstNet network products and services
and advantages for public safety**

On this site:

- Quality of service, priority and preemption
- Local control features
- Application ecosystem
- Devices and accessories for FirstNet
- Coverage and rate plans
- FirstNet network FAQs
- Contact a FirstNet specialist



Stay Connected

Visit our Website



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- Blogs
- FAQs
- Fact Sheets
- Presentations
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- Calendar of Events

Contact your State, Territory or Association Representatives

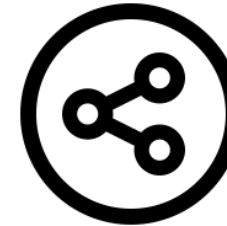


State Single Points of Contact (SPOC):

www.firstnet.gov/consultation

Public Safety Advisory Committee (PSAC):

www.firstnet.gov/about/public-safety-advisory-committee



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